

Mineral Detection and Content Evaluation Method

Abstract of Disclosure

A system and method for online, essentially instantaneous analyses of ore compositions on a moving belt use laser-induced break-down spectroscopy (LIBS), wherein intensity ratios of emission lines characteristic of specific minerals or ions are calculated on areas of the moving belt, with elevated contents of identifying ions or species being detectable. The ratios are derived from ions present in the sample that differentiate a first substance from a second substance, thus allowing sorting of the samples. The substance may include an ion, an element, or a compound.

Figures